Page 2

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for upgrading a software of a television

broadcasting signal receiving apparatus, comprising:

a code detecting unit for detecting a software code included in an advertisement

broadcasting signal during only broadcasting of an advertisement;

a version comparing unit for comparing a version of a the software code included in an

the advertisement broadcasting signal and a version of a previously installed previous software

code installed on the television broadcasting signal receiving apparatus; and

an upgrade processing unit for installing software associated with the software code

included in the advertisement broadcasting signal on the television broadcasting signal receiving

apparatus if the version of the software code is newer than the version of the previously installed

previous software code.

2. (Previously Presented) The apparatus of claim 1, wherein the software code includes

data of an upgraded system software.

3. (Currently Amended) The apparatus of claim 1, wherein the software is a system

software to be installed in an apparatus for receiving digital broadcasting a digital television

broadcasting signal receiving apparatus.

4. (Cancelled)

Page 3

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

5. (Original) The apparatus of claim 1, wherein the software is an upgraded software.

6. (Cancelled)

7. (Previously Presented) The apparatus of claim 1, further comprising:

a mode setting unit for setting a download-possible mode by determining whether the

software code can be downloaded when the advertisement broadcasting signal in which the

software code is inserted is received.

8. (Original) The apparatus of claim 1, further comprising:

a storage unit for storing the software code.

9. (Previously Presented) The apparatus of claim 1, further comprising:

an error detecting unit for determining whether an error exists in the software code

included in the advertisement broadcasting signal.

10. (Previously Presented) The apparatus of claim 1, the advertisement broadcasting

signal corresponds to an advertisement of a certain company.

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

Page 4

11. (Currently Amended) A method for upgrading a software of a television broadcasting

signal receiving apparatus, comprising the steps of:

detecting a software code included in an advertisement broadcasting signal during only

broadcasting of an advertisement;

receiving comparing a version of the software code included in an the advertisement

broadcasting signal in which a user data containing a software code is inserted and a version of a

previous software code installed on the television broadcasting signal receiving apparatus; and

installing software associated with the software code on the television broadcasting signal

receiving apparatus.

12. (Cancelled)

13. (Currently Amended) The method of claim 11, wherein the software is a system

software to be installed in an apparatus for receiving digital broadcasting a digital television

broadcasting signal receiving apparatus.

14. (Currently Amended) The method of claim 11, further comprising a step of:

checking whether the software code corresponds to a model of a the television

broadcasting signal receiving apparatus or an error exists when the advertisement broadcasting

signal in which the software code is inserted is received.

Page 5

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

15. (Cancelled)

16. (Currently Amended) The method of claim 15 claim 11, further comprising a step of:

deleting the received software code if when the version of the software code is not newer

than the version of the previously installed previous software code; and

checking whether the software will be upgraded in case when the version of the software

code is newer than the version of the previously installed previous software code.

17. (Original) The method of claim 11, wherein the software is installed or deleted

according to a response of a user.

18. (Original) The method of claim 11, wherein the user data includes:

a header block including basic index information on the software; and

a payload block including the software code.

19. (Original) The method of claim 18, wherein the header block and payload block are

formed in a packet form.

20. (Currently Amended) The method of claim 18, wherein the header block comprises:

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

Page 6

an applied receiver description code block for checking a the television broadcasting

signal receiving apparatus which performs software upgrade by recording brand name and model

number of a the television broadcasting signal receiving apparatus;

a version number block for showing version information of the software code;

a current packet number block for showing an order of the current packets when

receiving the software code divided into a number of packets;

a last packet number block for checking the total number of the packets;

a status flag block for recording an error correction type and information of beginning

and ending address of a target memory;

a payload length block for recording the length of a payload; and

a software version information block for recording guide information about the code

version of the software.

21. (Previously Presented) The method of claim 18, wherein the payload block

comprises:

a software code unit for recording the software code which is divided into packet units

with a certain size; and

an error check block for checking whether an error exists in the packet units and

correcting the error.

22-27. (Cancelled)

Page 7

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

28. (Currently Amended) An apparatus for upgrading a software of a digital

television broadcasting signal receiving apparatus, comprising:

a code detecting unit for receiving a digital advertisement broadcasting signal <u>during only</u>

broadcasting of an advertisement and detecting whether the software code is inserted in a user

data of the digital advertisement broadcasting signal;

a mode setting unit for setting a download-possible mode by determining whether the

software code is downloadable;

a storage unit for downloading and storing the software code in case of the download-

possible mode;

an error detecting unit for determining whether an error exists in the downloaded

software code;

a version comparing unit for comparing a version of the downloaded software code and a

version of a previously installed previous software code installed on the digital television

broadcasting signal receiving apparatus; and

an upgrade processing unit for installing software associated with the software code on

the digital television broadcasting signal receiving apparatus if the version of the downloaded

software code is newer than the version of the previously installed previous software code and if

no error exits in the downloaded software code.

Page 8

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

29. (Original) The apparatus of claim 28, wherein the software code includes data of an

upgraded system software.

30. (Currently Amended) A method for upgrading a software of a digital television

broadcasting signal receiving apparatus, comprising the steps of:

detecting a software code included in a digital advertisement broadcasting signal during

only broadcasting of an advertisement;

checking whether a software code inserted in an the digital advertisement broadcasting

signal corresponds to a model of a the digital television broadcasting signal receiving apparatus

or an error exists in the software code when the digital advertisement broadcasting signal is

received;

comparing a version of the software code and a version of a previously installed previous

software code installed on the digital television broadcasting signal receiving apparatus;

deleting the software code if the version of the software code is not newer than the

version of the previously installed previous software code; and

checking whether the software will be upgraded installing software associated with the

software code on the digital television broadcasting signal receiving apparatus if the version of

the software code is newer than the version of the previously installed previous software code;

and

installing software associated with the software code according to a response from a user.

Page 9

Application No.: 10/084,446

Art Unit: 2124

Amendment After Final dated August 29, 2005

31. (Currently Amended) The apparatus method of claim 30, wherein the software code

includes data of an upgraded system software.

32. (Previously Presented) The apparatus of claim 1, wherein the upgrade processing unit

automatically downloads the software code during broadcasting of the advertisement

broadcasting signal regardless the version of the software code.

33. (Cancelled)

34. (Currently Amended) The method of claim 11, further comprising:

automatically downloading the software code during broadcasting of the digital

advertisement broadcasting signal regardless the version of the software code.

35. (Cancelled)

36. (Previously Presented) The apparatus of claim 28, wherein the upgrade processing

unit automatically downloads the software code during broadcasting of the digital advertisement

broadcasting signal regardless the version of the downloaded software code.

37. (Cancelled)

Application No.: 10/084,446 Attorney Docket No. 0630-1430P

Art Unit: 2124 Page 10

Amendment After Final dated August 29, 2005

38. (Previously Presented) The method of claim 30, further comprising:

automatically downloading the software code during broadcasting of the digital advertisement broadcasting signal regardless the version of the software code.

39. (Cancelled)